

Comparative table of the rainfall at Alipore observatory, as measured daily in a 5-inch gauge, and monthly in an 8-inch gauge with evapometer.

Month.	ACTUAL MEASUREMENT, MONTHLY.			Corrected differ- ence—rainfall.	Total of daily measurement.	Error of month- ly measure- ment.
	Evapo- meter.	Gauge.	Differ- ence.			
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
April .....	3·08	5·91	2·83	2·88	2·01	+ 0·87
May .....	3·37	8·90	5·53	5·63	4·88	+ 0·75
June .....	3·68	18·70	15·02	15·31	14·78	+ 0·53
July .....	3·58	17·03	13·45	13·71	13·46	+ 0·25
August .....	3·74	17·18	13·44	13·70	13·33	+ 0·37
September .....	3·63	16·95	13·32	13·57	13·17	+ 0·40
October .....	3·70	8·97	5·27	5·37	5·11	+ 0·26
November .....	3·62	3·96	0·34	0·35	0·02	+ 0·33
December .....	3·61	4·05	0·44	0·45	0·15	+ 0·30
January .....	3·64	3·90	0·26	0·26	...	+ 0·26
Total .....	...	...	...	71·23	66·91	+ 4·32

The quantity shown by the new gauge is therefore constantly in excess; and there can be little doubt that this is owing to the evaporation from the evapometer being greater than from the gauge. Nevertheless for a rough measurement of the rainfall, in the rainy season, the instrument may serve fairly enough; and I think that one or two slight alterations may very much improve its working.

It is not difficult to decrease the evaporation in the evapometer by increasing the size of the outer cone, and a few trials will show what dimensions give the best result.

VIII.—On some *Lepidopterous* Insects belonging to the *Rhopaloceros* Genera *Euripus* and *Penthema* from India and Burmah.—By J. WOOD-MASON, Deputy Superintendent, Indian Museum, Calcutta.

[Received 5th February;—Read 6th April, 1881.]

(With Plates III & IV.)

1. EURIPUS CONSIMILIS. Pl. IV, Fig. 3.

*Diadema (Hestina) consimilis*, Westwood, Gen. Diurn. Lep., vol. ii, p. 281, note, ♀.

A fine specimen of the female of this striking species taken in the autumn of the past year in the Thoungyeen forests, British Burmah, by

Captain C. T. Bingham has been courteously lent to me by my friend Captain G. F. L. Marshall for figuring along with its South-Indian representative.

2. *EURIPUS CONSIMILIS*, var. *MERIDIONALIS*. Pl. IV, Fig. 2.

♀. Differs from the preceding in having the markings of the upper side in all the wings straw-coloured instead of pure and dazzling white; the basal two-thirds of the long streak in the interno-median space, as also the streak in the sutural area, of the anterior wings obsolete, and the sub-marginal short streaks at the apex of the same wings as prominent as those which succeed them; and all the venation of the posterior wings much more broadly dark-bordered, with the black patch referred to in the original description of *E. consimilis* consequently much less defined.

All the wings are bright carmine at their insertion on the under side just as in typical *E. consimilis*.

HAB. Trevandrum, Travancore, South India.

Specimens of the following species were received in the same collection with the preceding:—*Danaïs grammica*, Boisd. (= *D. ceylonica*, Felder); *Euplœa core*, Cramer, *E. ? montana*, Felder; *Mycælesisanaxias*, Hewitson, *M. junonia*, Butler; *Melanitis tristis*? Felder, *M. leda*, Linn.; *Parantirrhœa Marshalli*, gen. et sp. nov., W.-M.; *Zipoetes\* saitis*, Hew.; *Elymnias caudata*, Butler; *Discophora lepida*, Moore; *Cirrhochoera lanka*, Moore; *Cynthia erota*, Fabr.; *Messaras erymanthis*, Drury, var. without spots on the apical black of the anterior wings; *Neptis varmona*, Moore; *Abisara prunosa*, Moore; *Lycaena ethion*, Doubl. and Hew., *L. decidea*, Hew.; *Scolitantides nyseus*, Guér.; *Myrina atymnus*, Cr.; *Pieris remba*, Moore; *Tachyris paulina*, Cr.; *Eronia valeria*, var. *pingasa*, two fine females; *Hebomoia glaucippe*, Linn.; *Papilio eurypylus*, Linn., *P. anti-phates*, Cr., *P. aristolochiae*, Fabr., *P. jophon*, Gray, *P. dravidarum*, W.-M.. a fine series of males, *P. polymnestor*, Cr., and *Ornithoptera pompeus*, var. *minos*, Cr.

3. *PENTHEMA LISARDA*. Pl. III, Fig. 1.

Numerous specimens of both sexes of this well-known species are in the Museum from the Sikkim Hills, the Naga Hills, and the southern slopes of the Khasi Hills (Sylhet).

The setose clothing at the base of the posterior wings between the median and submedian veins is scanty and cretaceous-white like the markings.

The specimen figured is a male.

\* '*Ziboetes*' or '*Zipates*' (Ζιβόετης vel Ζιπόετης), not '*Zipaetis*', nor '*Zipatis*'.

4. *PENTHEMA DARLISA*. Pl. III, Fig. 2.

*P. darlisa*, Moore, Proc. Zool. Soc. Lond. 1878, p. 829, ♂ ♀.

Both sexes of this distinct species were described by Mr. Moore from specimens in my collection obtained in April at Meetan in Upper Tenasserim at an elevation of 3,000 feet.

Two specimens of the male out of many captured in March last by Captain Bingham in the Thongyeen forests have been presented to the Museum by Captain Marshall.

This species also differs from *P. lisarda* in its broader wings, a character not mentioned by Moore in his description of the species.

The scanty setose clothing of the base of the posterior wings is fuscous.

5. *PENTHEMA BINGHAMI*, n. sp., Pl. IV, Fig. 1.

♂. Differs from *P. darlisa* in having fully the basal half (including the same extent of the abdominal area in the posterior wings) of all the wings devoid of markings, the submarginal and discal series of spots alone remaining in both pairs; these two series of spots are bluish-white in the anterior wings and of a beautiful straw-yellow in the posterior wings; they are, in fact, of the same colour, size, and shape as in *P. darlisa*; but *the inner of the latter two series is closer to the outer*, which is placed at the same distance from the external margin of the wings. The wings are all also somewhat narrower than in *P. darlisa*, thus approaching those of the typical species; and the posterior pair are furnished on the basal half, between the median and submedian veins and in the discoidal cell, with a thick and conspicuous furry clothing of rich dark fuscous setae exactly matching the dark ground-colour of the wings and the abdomen of the insect in shade, which setose clothing is so scantily developed as to be quite inconspicuous in both the previously described species. The whole body, too, but especially the abdomen, is much darker-coloured than in either of them. Shadowy traces of the lost spots are faintly discernible on the anterior wings.

HAB. The Thongyeen forests, British Burmah, where a single specimen was obtained in March last by Captain Bingham, after whom, at Captain Marshall's suggestion, I have much pleasure in naming it.

## EXPLANATION OF THE PLATES.

## Plate III.

Fig. 1. *PentHEMA lisarda*, Doubleday, ♂.

Fig. 2. *PentHEMA darlisa*, Moore, ♂.

## Plate IV.

Fig. 1. *PentHEMA Binghami*, n. sp., ♂.

Fig. 2. *Euripus consimilis*, var. *meridionalis*, ♀.

Fig. 3. *Euripus consimilis*, Westwood, ♀.



1.



2.

Behari Lal Das del.

Fig. 1. PENTHEMA LISARDA, ♂.

Fig. 2. PENTHEMA DARLISA, ♂.



Fig. 1. PENTHEMA BINGHAMI, ♂.

Fig. 2. EURIPUS CONSIMILIS, VAR. MERIDIONALIS, ♀.

Fig. 3. EURIPUS CONSIMILIS, ♀.

Fig. 4. EURIPUS CINNAMOMEUS, ♀.

Fig. 5. TAGIADES BHAGAVA, VAR. ANDAMANICA, ♂.

EMPHRELL & CO. DEL.